```
RRRRRRRRRRR      UUU          UUU  NNN          NNN     000000000     FFFFFFFFFFFFFFF  FFFFFFFFFFFFFFF
RRRRRRRRRRRR     UUU          UUU  NNN          NNN     000000000     FFFFFFFFFFFFFFF  FFFFFFFFFFFFFFF
RRRRRRRRRRRR     UUU          UUU  NNN          NNN     000000000     FFFFFFFFFFFFFFF  FFFFFFFFFFFFFFF
RRR          RRR UUU          UUU  NNN          NNN  000         000  FFF              FFF
RRR          RRR UUU          UUU  NNN          NNN  000         000  FFF              FFF
RRR          RRR UUU          UUU  NNN          NNN  000         000  FFF              FFF
RRR          RRR UUU          UUU  NNNNNN       NNN  000         000  FFF              FFF
RRR          RRR UUU          UUU  NNNNNN       NNN  000         000  FFF              FFF
RRR          RRR UUU          UUU  NNNNNN       NNN  000         000  FFF              FFF
RRRRRRRRRRRR     UUU          UUU  NNN  NNN     NNN  000         000  FFFFFFFFFFFF     FFFFFFFFFFFF
RRRRRRRRRRRR     UUU          UUU  NNN  NNN     NNN  000         000  FFFFFFFFFFFF     FFFFFFFFFFFF
RRRRRRRRRRRR     UUU          UUU  NNN  NNN     NNN  000         000  FFFFFFFFFFFF     FFFFFFFFFFFF
RRR    RRR       UUU          UUU  NNN       NNNNNN  000         000  FFF              FFF
RRR    RRR       UUU          UUU  NNN       NNNNNN  000         000  FFF              FFF
RRR    RRR       UUU          UUU  NNN       NNNNNN  000         000  FFF              FFF
RRR       RRR    UUU          UUU  NNN          NNN  000         000  FFF              FFF
RRR       RRR    UUU          UUU  NNN          NNN  000         000  FFF              FFF
RRR       RRR    UUU          UUU  NNN          NNN  000         000  FFF              FFF
RRR          RRR UUUUUUUUUUUUUUU  NNN          NNN     000000000     FFF              FFF
RRR          RRR UUUUUUUUUUUUUUU  NNN          NNN     000000000     FFF              FFF
RRR          RRR UUUUUUUUUUUUUUU  NNN          NNN     000000000     FFF              FFF
RRR          RRR UUUUUUUUUUUUUUU  NNN          NNN     000000000     FFF              FFF
RRR          RRR UUUUUUUUUUUUUUU  NNN          NNN     000000000     FFF              FFF
```

```
_$2

Sym
---
NDX
NDX
NUM
NUM
OPE
OUT
PAC
PAC
PAC
PAC
PAC
PAC
PAC
PAD
PAG
PAG
PAG
PAG
PAG
PAG
PAG
PER
PUT
RCO
RIN

RLI
RNO
RNO
RTY
SAV
STR
STR
STR
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```

FILEID**PAGMRG

```
PPPPPPPP      AAAAAA      GGGGGGGG  MM      MM  RRRRRRRR      GGGGGGGG
PPPPPPPP      AAAAAA      GGGGGGGG  MM      MM  RRRRRRRR      GGGGGGGG
PP      PP   AA      AA  GG        MMMM  MMMM  RR      RR   GG
PP      PP   AA      AA  GG        MMMM  MMMM  RR      RR   GG
PP      PP   AA      AA  GG        MM  MM  MM  RR      RR   GG
PP      PP   AA      AA  GG        MM  MM  MM  RR      RR   GG
PPPPPPPP     AA      AA  GG        MM      MM  RRRRRRRR     GG
PPPPPPPP     AA      AA  GG        MM      MM  RRRRRRRR     GG
PP           AAAAAAAAAA  GG  GGGGGG MM      MM  RR  RR       GG  GGGGGG
PP           AAAAAAAAAA  GG  GGGGGG MM      MM  RR  RR       GG  GGGGGG
PP           AA      AA  GG      GG MM      MM  RR    RR     GG      GG     ....
PP           AA      AA  GG      GG MM      MM  RR    RR     GG      GG     ....
PP           AA      AA    GGGGGG   MM      MM  RR      RR     GGGGGG       ....
PP           AA      AA    GGGGGG   MM      MM  RR      RR     GGGGGG       ....

LL             IIIIII      SSSSSSSS
LL             IIIIII      SSSSSSSS
LL               II      SS
LL               II      SS
LL               II      SS
LL               II      SS
LL               II        SSSSSS
LL               II        SSSSSS
LL               II              SS
LL               II              SS
LL               II              SS
LL               II              SS
LLLLLLLLLL     IIIIII    SSSSSSSS
LLLLLLLLLL     IIIIII    SSSSSSSS
```

```
;     1          0001  0 MODULE PAGMRG (IDENT = 'V04-000'
;     2          0002  0                 %BLISS32[,ADDRESSING_MODE(EXTERNAL=LONG_RELATIVE,NONEXTERNAL=LONG_RELATIVE)]
;     3          0003  0                 ) =
;     4          0004  1 BEGIN
;     5          0005  1 !
;     6          0006  1 !**************************************************************************
;     7          0007  1 !*                                                                        *
;     8          0008  1 !*  COPYRIGHT (c) 1978, 1980, 1982, 1984 BY                              *
;     9          0009  1 !*  DIGITAL EQUIPMENT CORPORATION, MAYNARD, MASSACHUSETTS.                *
;    10          0010  1 !*  ALL RIGHTS RESERVED.                                                  *
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;    14          0014  1 !*  INCLUSION OF THE ABOVE COPYRIGHT NOTICE. THIS SOFTWARE OR  ANY  OTHER  *
;    15          0015  1 !*  COPIES THEREOF MAY NOT BE PROVIDED OR OTHERWISE MADE AVAILABLE TO ANY  *
;    16          0016  1 !*  OTHER PERSON.  NO TITLE TO AND OWNERSHIP OF  THE  SOFTWARE IS  HEREBY  *
;    17          0017  1 !*  TRANSFERRED.                                                           *
;    18          0018  1 !*                                                                        *
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;    20          0020  1 !*  AND  SHOULD  NOT  BE  CONSTRUED AS  A COMMITMENT BY DIGITAL EQUIPMENT  *
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;    22          0022  1 !*                                                                        *
;    23          0023  1 !*  DIGITAL ASSUMES NO RESPONSIBILITY FOR THE USE  OR  RELIABILITY OF ITS  *
;    24          0024  1 !*  SOFTWARE ON EQUIPMENT WHICH IS NOT SUPPLIED BY DIGITAL.                *
;    25          0025  1 !*                                                                        *
;    26          0026  1 !*                                                                        *
;    27          0027  1 !**************************************************************************
;    28          0028  1 !
;    29          0029  1
;    30          0030  1 !++
;    31          0031  1 ! FACILITY:
;    32          0032  1 !   DSR (Digital Standard RUNOFF) /DSRPLUS DSRINDEX/INDEX Utility
;    33          0033  1 !
;    34          0034  1 ! ABSTRACT:       Compares page numbers to see if they can be merged.
;    35          0035  1 !
;    36          0036  1 ! ENVIRONMENT:    Transportable
;    37          0037  1 !
;    38          0038  1 ! AUTHOR:         R. W. Friday
;    39          0039  1 !
;    40          0040  1 ! CREATION DATE: May, 1979
;    41          0041  1 !
;    42          0042  1 ! MODIFIED BY:
;    43          0043  1 !       002     JPK00024        23-May-1983
;    44          0044  1 !               Modified lowercasing algorithm in PERMUTE. Now lowercase only
;    45          0045  1 !               if word contains only 1 letter or if second letter in word is
;    46          0046  1 !               lowercase. Picked up modules PAGMRG and POOL from DSR/DSRPLUS
;    47          0047  1 !               since they are no longer used by DSR/DSRPLUS.
;    48          0048  1 !
;    49          0049  1 !--
;    50          0050  1
;    51          0051  1 !
;    52          0052  1 ! TABLE OF CONTENTS
;    53          0053  1 !
;    54          0054  1
;    55          0055  1 FORWARD ROUTINE
;    56          0056  1     PAGMRG;
;    57          0057  1
```

```
:    58          0058  1 !
:    59          0059  1 ! INCLUDE FILES:
:    60          0060  1 !
:    61          0061  1
:    62          0062  1 LIBRARY 'NXPORT:XPORT';
:    63          0063  1
:    64          0064  1 REQUIRE 'REQ:PAGEN';
:    65          0145  1
:    66          0146  1 !
:    67          0147  1 ! MACROS:
:    68          0148  1 !
:    69          0149  1 ! EQUATED SYMBOLS:
:    70          0150  1 !
:    71          0151  1
:    72          0152  1 LITERAL
:    73          0153  1     TRUE = 1,
:    74          0154  1     FALSE = 0;
:    75          0155  1
:    76          0156  1 !
:    77          0157  1 ! OWN STORAGE:
:    78          0158  1 !
:    79          0159  1 !
:    80          0160  1 ! EXTERNAL REFERENCES:
:    81          0161  1 !
:    82          0162  1
:    83          0163  1 EXTERNAL ROUTINE
:    84          0164  1     DSPEQL;
```

```
;    86          0165  1 %SBTTL 'PAGMRG -- Compare two page entries to see if they can be merged'
;    87          0166  1 GLOBAL ROUTINE PAGMRG (ENTRY1, ENTRY2) =
;    88          0167  1
;    89          0168  1 !++
;    90          0169  1 ! FUNCTIONAL DESCRIPTION:
;    91          0170  1 !
;    92          0171  1 !       Compare two page numbers to see if they are adjacent pages.
;    93          0172  1 !
;    94          0173  1 ! FORMAL PARAMETERS:
;    95          0174  1 !
;    96          0175  1 !       ENTRY1 and ENTRY2 are the page numbers to be compared.
;    97          0176  1 !
;    98          0177  1 ! IMPLICIT INPUTS:
;    99          0178  1 !
;   100          0179  1 !       NONE
;   101          0180  1 !
;   102          0181  1 ! IMPLICIT OUTPUTS:
;   103          0182  1 !
;   104          0183  1 !       NONE
;   105          0184  1 !
;   106          0185  1 ! ROUTINE VALUE:
;   107          0186  1 ! COMPLETION CODES:
;   108          0187  1 !
;   109          0188  1 !       TRUE    - Specified page numbers are adjacent
;   110          0189  1 !       FALSE   - Specified page numbers are not adjacent
;   111          0190  1 !
;   112          0191  1 ! SIDE EFFECTS:
;   113          0192  1 !
;   114          0193  1 !       NONE
;   115          0194  1 !
;   116          0195  1 !--
;   117          0196  1
;   118          0197  2     BEGIN
;   119          0198  2
;   120          0199  2     MAP
;   121          0200  2         ENTRY1 : REF PAGE_DEFINITION,
;   122          0201  2         ENTRY2 : REF PAGE_DEFINITION;
;   123          0202  2
;   124          0203  2     !
;   125          0204  2     ! Both entries must exist
;   126          0205  2     !
;   127          0206  2     IF (.ENTRY1 EQL 0) OR (.ENTRY2 EQL 0) THEN RETURN FALSE;
;   128          0207  2
;   129          0208  2     !
;   130          0209  2     ! By definition, you can't merge page numbers if
;   131          0210  2     ! their display characteristics are different.  Test for this.
;   132          0211  2     !
;   133          0212  2     IF NOT DSPEQL (.ENTRY1, .ENTRY2) THEN RETURN FALSE;
;   134          0213  2
;   135          0214  2     !
;   136          0215  2     ! Section type must match
;   137          0216  2     !
;   138          0217  2     IF .ENTRY1 [SCT_TYP] NEQ .ENTRY2 [SCT_TYP] THEN RETURN FALSE;
;   139          0218  2
;   140          0219  2     !
;   141          0220  2     ! Section number must always match
;   142          0221  2     !
```

```
;  143     0222  2     IF .ENTRY1 [SCT_NUMBER] NEQ .ENTRY2 [SCT_NUMBER] THEN RETURN FALSE;
;  144     0223  2
;  145     0224  2     !
;  146     0225  2     ! If sub-page exists, the page number must match and the sub-pages
;  147     0226  2     ! must differ only by 1
;  148     0227  2     !
;  149     0228  2     IF .ENTRY1 [SCT_SUB_PAGE] NEQ 0
;  150     0229  2     THEN
;  151     0230  3         BEGIN
;  152     0231  3
;  153     0232  3         IF .ENTRY1 [SCT_PAGE] NEQ .ENTRY2 [SCT_PAGE] THEN RETURN FALSE;
;  154     0233  3
;  155     0234  4         IF  (.ENTRY1 [SCT_SUB_PAGE] NEQ .ENTRY2 [SCT_SUB_PAGE] - 1)
;  156     0235  4         AND (.ENTRY1 [SCT_SUB_PAGE] NEQ .ENTRY2 [SCT_SUB_PAGE])
;  157     0236  3         THEN
;  158     0237  3             RETURN FALSE;
;  159     0238  3
;  160     0239  3         RETURN TRUE
;  161     0240  2         END;
;  162     0241  2
;  163     0242  2     !
;  164     0243  2     ! If all else is OK, page numbers can differ only by 0 or 1
;  165     0244  2     !
;  166     0245  2     IF .ENTRY1 [SCT_PAGE] NEQ .ENTRY2 [SCT_PAGE] - 1
;  167     0246  2     THEN
;  168     0247  3         BEGIN
;  169     0248  3
;  170     0249  3         IF .ENTRY1 [SCT_PAGE] NEQ .ENTRY2 [SCT_PAGE] THEN RETURN FALSE;
;  171     0250  2         END;
;  172     0251  2
;  173     0252  2     RETURN TRUE;
;  174     0253  1     END;                            !End of PAGMRG

                                                    .TITLE  PAGMRG
                                                    .IDENT  \V04-000\

                                                    .EXTRN  DSPEQL

                                                    .PSECT  $CODE$,NOWRT,2

                                      000C 00000    .ENTRY  PAGMRG, Save R2,R3                  ; 0166
                    52        04    AC   D0 00002   MOVL    ENTRY1, R2                          ; 0206
                                    5C   13 00006   BEQL    4$
                              08    AC   D5 00008   TSTL    ENTRY2
                                    57   13 0000B   BEQL    4$
                    53        08    AC   D0 0000D   MOVL    ENTRY2, R3                          ; 0212
                                    0C   BB 00011   PUSHR   #^M<R2,R3>
          00000000G EF              02   FB 00013   CALLS   #2, DSPEQL
                    47              50   E9 0001A   BLBC    R0, 4$
     50             63              62   8D 0001D   XORB3   (R2), (R3), R0                     ; 0217
                    0F              50   93 00021   BITB    R0, #15
                                    3E   12 00024   BNEQ    4$
                 04 A3        04    A2   D1 00026   CMPL    4(R2), 4(R3)                        ; 0222
                                    37   12 0002B   BNEQ    4$
                              02    A2   B5 0002D   TSTW    2(R2)                               ; 0228
                                    1C   13 00030   BEQL    1$
```

```
                                08   A3        08   A2  D1 00032          CMPL    8(R2), 8(R3)                          ; 0232
                                                  2B  12 00037          BNEQ    4$
                                50        02    A3  3C 00039          MOVZWL  2(R3), R0                             ; 0234
                                                  50  D7 0003D          DECL    R0
          50        02   A2                     00  ED 0003F          CMPZV   #0, #16, 2(R2), R0
                                                  19  13 00045          BEQL    3$
                                02   A3        02   A2  B1 00047          CMPW    2(R2), 2(R3)                          ; 0235
                                                  10  11 0004C          BRB     2$
                           50   08   A3             01  C3 0004E  1$:     SUBL3   #1, 8(R3), R0                         ; 0245
                                50        08    A2  D1 00053          CMPL    8(R2), R0
                                                  07  13 00057          BEQL    3$
                                08   A3        08   A2  D1 00059          CMPL    8(R2), 8(R3)                          ; 0249
                                                  04  12 0005E  2$:     BNEQ    4$
                                50                  01  D0 00060  3$:     MOVL    #1, R0                                ; 0252
                                                      04 00063          RET
                                                  50  D4 00064  4$:     CLRL    R0                                    ; 0253
                                                      04 00066          RET

; Routine Size:  103 bytes,    Routine Base:  $CODE$ + 0000

;  175          0254  1
;  176          0255  1 END                                 !End of module
;  177          0256  0 ELUDOM



;                                   PSECT SUMMARY
;
;       Name                    Bytes                           Attributes
;
;  $CODE$                            103  NOVEC,NOWRT,  RD ,  EXE,NOSHR,  LCL,  REL,  CON,NOPIC,ALIGN(2)


;                                Library Statistics
;                                                 --------  Symbols  --------      Pages       Processing
;       File                                      Total    Loaded   Percent       Mapped      Time
;
;  _$255$DUA28:[SYSLIB]XPORT.L32;1                  590         0         0        252          00:00.1



;                                   COMMAND QUALIFIERS
;       BLISS/CHECK=(FIELD,INITIAL,OPTIMIZE)/LIS=LIS$:PAGMRG/OBJ=OBJ$:PAGMRG MSRC$:PAGMRG/UPDATE=(ENH$:PAGMRG)
; Size:          103 code + 0 data bytes
```

```
; Run Time:          00:03.6
; Elapsed Time:      00:10.7
; Lines/CPU Min:      4290
; Lexemes/CPU-Min: 17145
; Memory Used:  50 pages
; Compilation Complete
```

PAGE
LIS

PERMUTE
LIS

PAGCMB
LIS

PANPA
LIS

RCS
LIS

POOL
LIS

RINIT
LIS

PERIOD
LIS

PUS
LIS

PUTNDX
LIS

PARSEP
LIS

PUTTOC
LIS

REQUIR
LIS

PAGMRG
LIS

PARAG
LIS

REPEAT
LIS